

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

Listing of Claims:

1. (Currently Amended) A method for extruding ~~combining~~ electrode components into a thin film comprising the steps of : mixing an active material, an ionically-conductive polymer, an electrolyte salt, and less than 5 percent by weight of plasticizer ~~no added solvent, the method comprising processing the electrode components using a single screw extruder into a mixing chamber of a single screw extruder, pushing the mixed electrode components through a die where said mixed electrode components is shaped as a thin film having a thickness of less than 125 microns.~~
2. (Currently Amended) The method of claim 1 wherein the ~~combined~~ mixed electrode components include a total of less than 0.8 percent by weight ~~solvent~~ plasticizer.
3. (Currently Amended) The method of claim 1 wherein the ~~combined~~ mixed electrode components include a total of less than 0.1 percent by weight ~~solvent~~ plasticizer.
4. (Currently Amended) The method of claim 1 wherein ~~comprises~~ the active material is selected from the group consisting of oxides of vanadium, its lithiated versions, and mixtures thereof.
5. (Original) The method of claim 1 wherein the electrode components comprise at least 40%/wt of said active material.
6. (Original) The method of claim 1 wherein the electrode components comprise at least 50%/wt of said active material.

7. (Original) The method of claim 1 wherein the electrode components comprise at least 60%/wt of said active material.
8. (Original) The method of claim 1 wherein the electrode components comprise from about 57-67 weight percent active material.
9. (Original) The method of claim 1 wherein the electrode components further comprise electrically-conductive material comprising carbon black, graphite, or a combination thereof.
10. (Currently Amended) The method of claim 9 wherein the electrically-conductive material comprises a mixture of carbon and graphite in a ratio of carbon/graphite ranging from about 0.5:1 to ~~2:1~~ 4:1.
11. (Original) The method of claim 1 wherein the ionically-conductive polymer is selected from the group consisting of: polymers or copolymers of ethylene oxide, and cyclic ether oxides.
12. (Original) The method of claim 11 wherein the ionically-conductive polymer comprises a polyethylene oxide.
13. (Original) The method of claim 1 wherein the electrolyte salt comprises a lithium salt.
14. (Original) The method of claim 13 wherein the lithium salt is TFSI bis(trifluoromethanesulfonyl)imide salt.
15. (Currently Amended) A method for ~~combining~~ mixing electrode components comprising: an active material, an ionically-conductive polymer, an electrolyte salt, into an homogenous state wherein the method comprises processing the electrode components in a molten state using a single or twin screw extruder and discharging the mixed electrode components shaped as a thin film having a thickness of less than 125 microns ~~and wherein the electrode components are processed in a molten state.~~

16. (Currently Amended) A method of producing a battery cathode, the method comprising: processing a mixture of ingredients comprising greater than about 50 weight percent active material, from about 1 to about 10 weight percent electrically-conductive material comprising carbon black, graphite, or a combination thereof, from about 10 to about 40 weight percent polymer comprising ionically-conductive polyethylene oxide polymer, from about 4 to about 10 weight percent lithium salt, wherein the mixture includes a total of less than about 0.8 percent by weight-solvent plasticizer, the method comprising using a single or twin screw extruder, ~~and~~ processing the mixture in a molten state in the form of a thin film having a thickness of less than 125 microns.

17. (Currently Amended) A method for ~~extruding-combining~~ electrode components into a thin film comprising the steps of : mixing an active material, an ionically-conductive polymer, an electrolyte salt, and less than 5 percent by weight of plasticizer ~~no added solvent, the method comprising processing the electrode components using a twin screw extruder~~ into a mixing chamber of a twin screw extruder, pushing the mixed electrode components through a die where said mixed electrode components is shaped as a thin film having a thickness of less than 125 microns.

18. (Currently Amended) The method of claim 17 wherein the ~~combined~~ mixed electrode components include a total of less than 0.8 percent by weight-solvent plasticizer.

19. (Currently Amended) The method of claim 17 wherein the ~~combined~~ mixed electrode components include a total of less than 0.1 percent by weight-solvent plasticizer.

20. (Currently Amended) The method of claim 17 wherein ~~comprises~~ the active material is selected from the group consisting of oxides of vanadium, its lithiated versions, and mixtures thereof.

21. (Original) The method of claim 17 wherein the electrode components comprise at least 40%/wt of said active material.

22. (Original) The method of claim 17 wherein the electrode components comprise at least 50%/wt of said active material.
23. (Original) The method of claim 17 wherein the electrode components comprise at least 60%/wt of said active material.
24. (Original) The method of claim 17 wherein the electrode components comprise from about 57-67 weight percent active material.
25. (Original) The method of claim 17 wherein the electrode components further comprise electrically-conductive material comprising carbon black, graphite, or a combination thereof.
26. (Currently Amended) The method of claim 25 wherein the electrically-conductive material comprises a mixture of carbon and graphite in a ratio of carbon/graphite ranging from about 0.5:1 to ~~2:1~~ 4:1.
27. (Original) The method of claim 17 wherein the ionically-conductive polymer is selected from the group consisting of: polymers or copolymers of ethylene oxide, and cyclic ether oxides.
28. (Original) The method of claim 27 wherein the ionically-conductive polymer comprises a polyethylene oxide.
29. (Original) The method of claim 17 wherein the electrolyte salt comprises a lithium salt.
30. (Original) The method of claim 29 wherein the lithium salt is TFSI bis(trifluoromethanesulfonyl)imide salt.
- 31.-66. (cancelled).

67. (New) The method of claim 1 wherein volatile matter remaining in the electrode components are eliminated during the mixing step are eliminated through at least one vent provided in the mixing chamber of the single screw extruder.

68. (New) The method of claim 17 wherein volatile matter remaining in the electrode components are eliminated during the mixing step are eliminated through at least one vent provided in the mixing chamber of the twin screw extruder.

69. (New) The method of claim 1, wherein the plastisizer is selected from the group consisting of: Polyvinylidene fluoride (PVDF), polyvinyl fluoride (PVF), Hexafluoroisopropanol (HFP), polyethylene glycol dimethyl ether, Tridecyl methacrylate, Stearyl methacrylate, Tetraglyme, Triglyme, Ethylene Carbonate, Propylene Carbonate, EO/PO diglycol and EO/PO monoglycol, distearates and water.

70. (New) The method of claim 17, wherein the plastisizer is selected from the group consisting of: Polyvinylidene fluoride (PVDF), polyvinyl fluoride (PVF), Hexafluoroisopropanol (HFP), polyethylene glycol dimethyl ether, Tridecyl methacrylate, Stearyl methacrylate, Tetraglyme, Triglyme, Ethylene Carbonate, Propylene Carbonate, EO/PO diglycol and EO/PO monoglycol, distearates and water.

71. (New) The method of claim 1 further comprising the step of discharging the mixed electrode components shaped as a thin film directly between a pair of cooled rollers to reduce the thickness of electrode components thin film.

72. (New) The method of claim 71, wherein the cooled rollers are maintained at a temperature ranging from -5 °C to -30 °C.

73. (New) The method of claim 17 further comprising the step of discharging the mixed electrode components shaped as a thin film directly between a pair of cooled rollers to reduce the thickness of electrode components thin film.

74. (New) The method of claim 73, wherein the cooled rollers are maintained at a temperature ranging from -5 °C to -30 °C.